

The Web Enabled IHC Enterprise Data Warehouse for Clinical Process Improvement and Outcomes Measurement

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Data Warehousing is the process of integrating enterprise-wide corporate data into a central repository from operational systems and other sources so that the business data can be used to help an organization be more proactive and competitive. Data Warehousing technology can be used to facilitate Clinical Process Improvement by collecting and storing the related data, analyzing the outcomes, monitoring the progress. The goal of the IHC Enterprise Data Warehouse Project is to provide a foundation and central data repository to support the ongoing process improvement and other data analysis and decision support needs at IHC.

IHC has invested considerable effort in building a Enterprise Web enabled Data Warehouse. The IHC Enterprise Data Warehouse currently includes data from our financial systems, claims system, clinical systems and other data sets collected to support various outcome studies including patient satisfaction and health needs. The Data Warehouse combines web technology and an integrated data mart approach which provides a manageable, achievable and maintainable solution to our enterprise business decision support needs. The IHC Enterprise Data allows us to track outcomes and improvements across 24 hospitals, 70+ clinics and 750,000 insured live through the IHC intranet.

The demonstration will consist of an online presentation of both the tools used to create the Data Warehouse and examples of

existing outcomes applications currently in use within IHC. We will focus on the three building blocks of the Data Warehouse. These are 1) a powerful template generation tool used to create data entry screens for acquisition of patient information directly into the Warehouse, 2) the structure and content of the Data Warehouse, and 3) the Web applications used to access the Warehouse for outcomes reports.

Key components of the IHC Data Warehouse which will be presented during the demonstration include the following:

- 1) Data sources: data sets from operational systems and other data collection programs.
- 2) Our Horizontal data mart (operational system data mart).
- 3) Examples of our Vertical data marts (business area data mart): Among the vertical data marts to be presented will be our Heart Services Data Mart and our Women and Newborn Data Mart.
- 4) Data access/analysis/reporting tools: These are primarily web-based applications providing easy and timely access to the information needed to make business decisions.
- 5) Data extraction and transformation tools required to extract data from our operational systems into the data warehouse and transform the data to fit into appropriate data marts.
- 6) Meta data: web based information directory for the data warehouse.